

NAME _____ KEY _____ DATE _____

SOLVE EQUATIONS USING LOGS

Solve each for x rounding to the nearest hundredths place.

1. $2^x = 5$

2.32

2. $3^x = 4$

1.26

3. $4^x = 19$

2.12

4. $4^x = 47$

2.78

5. $5^x = 81.2$

2.73

6. $3^x = 27.3$

3.01

7. $4^{2x} = 17$

1.02

8. $6^{2x} = 21$

0.85

9. $5^{x+1} = 24$

0.98

10. $7^{x+2} = 54$

0.05

11. $3^{x+4} = 101$

0.20

12. $4^{x-2} = 89$

5.24

13. $5^{x-3} = 75$

5.68

14. $6^{3x+1} = 243$

0.69

15. $7^{2x-1} = 316$

1.98

16. $1.3^x = 7$

7.42

17. $2.1^x = 9$

2.96

18. $4.2^x = 93.1$

3.16

19. $6.3^x = 69.5$

2.30

20. $4^{3x} = 77.2$

1.05

21. $5^{3x} = 61.4$

0.85

22. $29.3^{4x-1} = 17.3^{5x+2}$

-12.20

23. $4^{3x-1} = 8^{x+2}$

2.67

24. $100^{5x+2} = 1000^{4x+6}$

-7

25. $9^{2x+1} = 27^{x+2}$

4

26. $2^{3x-1} = 7^{4x-3}$

0.90

27. $\log_2 9$

3.17

28. $\log_4 8$

1.50

29. $\log_3 54$

3.63

30. $\log_5 62$

2.56

31. $\log_4 72$

3.08

32. $\log_6 120$

2.67

33. $\log_3 29$

3.07

34. $\log_5 63$

2.57